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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/509,302	06/02/2000	STUART EDMUND BLACKET	P-5742	3553

7590

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EXAMINER

COZART, JERMIE E

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 09/16/2003

17

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/509,302

Applicant(s)

BLACKET, STUART EDMUND

Examiner

Jermie Cozart

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-13 and 15-22 is/are pending in the application.
- 4a) Of the above claim(s) 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-13, 15, and 17-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-12, 15, and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 4,419,065 (DE'065) in view of Schleicher 5,051,020 (Schleicher'020).

DE'065 discloses joining together two or more superimposed generally planar sheets (1, 2) using a fastener having a shank (15) and having a fastener setting and sheet deforming assembly comprising a die (3) with an annular recess (see *Figure 1A*) immediately adjacent a cavity (10), wherein the planar sheets (1, 2) are placed in the fastener setting and sheet deforming assembly. The assembly is operated to set the fastener into engagement with the sheets (1, 2) such that the shank (15) of the fastener is upset in the die cavity (10) without penetration of the lowermost sheet (2) of the superimposed generally planar sheets. The sheets (1, 2) are deformed before the fastener is set (see *Figure 1B*). The sheets are clamped together before the fastener is set (see *Figure 1b*). The sheets are unclamped before the fastener is set (see *Figure 1A*). The sheets (1, 2) are clamped together between a clamping member (5) and the die (3), the sheets being deformed between the clamping member and die (see *Figure 1b*). The sheets are deformed by a head portion of the fastener (see *Figure 1C*). It is

apparent that the sheets have been deformed after the fastener has been set. The sheets (1, 2) are deformed and the fastener (16) is simultaneously set (*see Figure 1C*). The sheets (1, 2) are deformed by a head portion (not labeled) of the fastener (16) driving the sheets into the recess (*see Figure 1C*) when the fastener is set. The sheets (1, 2) are clamped against a surface (12) of the die (3) outside the recess during the setting of the fastener. It appears that the thickness of the head increases continually in a radially outwards direction to define a convex surface beneath the head (*see Figure 3C*). *See abstract and Figures 1A-3C for further clarification.*

DE`065, however, does not explicitly disclose deforming all of the sheets out of their planes into the annular recess.

Schleicher`020 discloses providing a die (282, 284) wherein each of the metal sheets (286, 288) is deformed out of plane into an annular recess surrounding a cavity, in order to effectively form a clinch type leak proof joint. *See column 8, line 48 – column 9, line 40, and Figures 31-34 for further clarification.*

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the apparatus of DE`065 with complementary dies wherein each die has annular recess immediately adjacent to a cavity wherein each of metal sheets is deformed out of their planes into an annular recess, in light of the teachings of Schleicher`020, in order to effectively form a clinch type leak proof joint.

3. Claim 13 rejected under 35 U.S.C. 103(a) as being unpatentable over DE`065/Schleicher`020 as applied to claims 2-12, 15, and 17-22 above, and further in view of Applicant's Admitted Prior Art (AAPA).

DE`065/Schleicher`020 as modified above discloses all of the claimed subject matter except for the fastener head increasing in thickness toward the periphery so as to define a convex surface facing the recess formed in the die.

Figure 1 of AAPA appears to disclose the fastener head increasing in thickness toward the periphery so as to define a convex surface facing the recess formed in the die (13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to increase the thickness of the fastener head of DE`065/Schleicher`020 towards the periphery, in light of the teachings of AAPA, in order to effectively attach the rivet to the panels.

Response to Arguments

4. Applicant's arguments filed 6/24/03 have been fully considered but they are not persuasive.

Applicant argues that the `065 German patent fails to illustrate a fastener setting and deforming assembly with an annular recess immediately adjacent to the cavity as recited by independent Claims 17 and 22.

In response, the Examiner maintains that the annular recess [not labeled] in Figure 1A of the `065 German patent is immediately adjacent to the cavity (10), and is merely distinguished from the cavity by an edge (12) which is similar to the unlabeled edge portion separating the annular recess and cavity of applicant's invention.

Applicant further argues that since the raised cutting edge 12 around the die cavity 10 separates what the Examiner considers as the annular recess of the die from

the die cavity 10, then the die annular recess is not immediately adjacent to the center cavity such that there is nothing between the annular recess and the cavity”.

In response, the Examiner maintains that edge (12) serves as a line of demarcation to distinguish the annular recess from the cavity (10) and does not prohibit the annular recess from being interpreted as being immediately adjacent to the cavity, as was noted above the annular recess of applicant's invention has an edge which separates it from the cavity as well.

Applicant argues that the Schleicher patent also does not disclose deformation of the sheets into an annular recess immediately adjacent to the die cavity.

In response, the Examiner maintains that Schleicher (5051020) at Figures 31-34 disclose the sheets being deformed out of plane into conformance with annular recess immediately adjacent to the die cavity.

Applicant argues that the combination of '065 German patent and the Schleicher patent fails to illustrate the present invention as set forth in the claims, and that both references teach away from the key concept of the present invention.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In addition, the Examiner maintains that the German '065 patent teaches all of the limitations except for each of the sheets being deformed out of their planes into an annular recess surrounding a cavity. Schleicher clearly teaches as shown in Figure 34,

deforming both sheets out of their planes into an annular recess surrounding a cavity to interlock them together. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to deform both sheets of the German '065 patent out of their planes into an annular recess surrounding a cavity, in light of the teachings of Schleicher, in order to interlock the two sheets together.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, should be directed to the group clerical personnel. In as much as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information. M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

7. If in receiving this Office Action it is apparent to applicant that certain documents are missing, e.g., copies of references cited, form PTO-1449, form PTO-892, etc., requests for copies of such papers or other general questions should be directed to Tech Center 3700 Customer Service at (703) 306-5648, or fax (703) 872-9301 or by email to CustomerService3700@uspto.gov.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermie Cozart whose telephone number is 703-305-0126. The examiner can normally be reached on Monday-Thursday, 7:30 am - 6:00 pm.

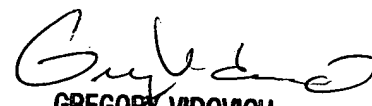
9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Vidovich can be reached on 703-308-1513. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Information Help line
Internet PTO-Home Page

1-800-786-9199
<http://www.uspto.gov>

JC 
September 10, 2003


GREGORY VIDOVICH
SUPERVISORY PATENT EXAMINER
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